tation of papers and panel discussions under seven sessional headings as follows: (I) Overview and Unifying Concepts, (II) Atmosphere–Ocean Interaction, (III) Life Systems, (IV) Solid Earth, (V) Sun and Space, (VI) The Tools and Technology, and (VII) The Geosphere–Biosphere, with a subsequent Summary Presentation to the 20th ICSU General Assembly within which the 'multidisciplinary symposium' was held—as explained in the preceding item in the Conferences & Meetings section of our Journal, kindly contributed by the Executive Secretary of ICSU. The presentations and debates being generally of a very high order, it is welcome news that the Proceedings are to be published by the recently-established ICSU Press.

The second, merely half-day, event was entitled 'Symposium on Science Education and Social Needs' and consisted of four sessions as follows: (I) Introduction: Science Education and Social and Economic Development, (II) The [ICSU] Science and Society Project, (III) Science Education and the Needs of Developing Countries, and (IV) Panel Discussion: Practical Perspectives on Teaching Science for Social Needs, which last involved the leaders of the eight ICSU–CTS (i.e. ICSU Committee on the Teaching of Science) teams concerned with the teaching of social themes in science education as follows: 1) Health, 2) Food and Agriculture, 3) Energy Resources, 4) Use of Land, Water, and Mineral, Resources, 5) Industry and Technology, 6) Environment, 7) Information Technology and Transfer, and 8) Ethics and Social Responsibility.

The third and last, likewise half-day, item was the 'Symposium on Gene Technology', of which the components were listed as: (I) Gene Technology in Plant Agriculture, (II) Nitrogen Fixation, a Fix We All Need, (III) Site-specific Mutagenesis Using Oligonucleotides, (IV) Gene Technology in the Study of the Human Genome, (V) Gene Technology in Therapeutics, (VI) New Beginnings in Gene Technology, and (VII) Panel Discussion. The main emphasis being on recent developments and applications in Medicine and Agriculture, the above order and some titles were changed to those indicated in the fifth paragraph of the preceding account.

Without prejudicing the promised report on the ICSU 20th General Assembly, it is gratifying to note that the latter passed unanimously (as the second of its 'Resolutions and Decisions') the following item which seems to us an outstandingly important prospect:

> '*Taking into consideration* the discussions that have occurred over the past year relating to global change in the interaction between the physical and living world and the ICSU symposium held in Ottawa on 25 September 1984, and expressing its continued support for existing related programmes, the Assembly: *invites* the Executive Board to establish an *ad hoc* planning group on global change to review the relevant ongoing activities of bodies in the ICSU family and other organizations, to identify priority subjects for early action, and to develop a coherent programme after analysis of the possible contribution of ICSU Scientific Unions, National Members, and specialist bodies, and *requests* ICSU to provide the necessary resources to enable the planning group to undertake this task; *invites* National Members of ICSU to support the development of the global change programme and to consider their possible contributions to the programme; *requests* the planning group to report to the 21st General Assembly.'

As the third such item the Assembly '*invites* COSPAR to set up an appropriate interdisciplinary group to act as a focus for remote sensing activities.' COSPAR being ICSU's Committee on Space Research, we may accordingly expect that these vital matters of global or at least widespread environmental change, whether 'natural' or human-engendered, will henceforth be watched as perceptively as modern science makes possible—towards alerting the world where necessary for timely action.

NICHOLAS POLUNIN

SESSION OF THE WORLD HEALTH ORGANIZATION'S ADVISORY COMMITTEE ON MEDICAL RESEARCH (ACMR), HELD AT WHO HEADQUARTERS, GENEVA, SWITZERLAND, DURING 8–12 OCTOBER 1984

This Committee, created in 1959 and composed of 19 members from all the 6 WHO regions, is charged with advising the Director-General of the Organization on the general orientation of WHO's research, and with the formulation of global priorities for health research in the light of the Organization's goals and policies. As such, the Committee plays a prominent part in the harmonization of WHO's research efforts as between the national, regional, and interregional levels, and in their effective global synthesis. With these orientations, the Committee is called on to strengthen the research component of the Organization's global goal 'health for all by the year 2000', which, among other criteria, aspires to the attainment—in 'developing' regions — of levels of infant mortality and life expectancy that are currently predominant in industrialized regions.

This year's session, the 26th in all, was under the chairmanship of Professor V. Ramalingaswami, of New Delhi, India, and was especially concerned with three priorities in this context, namely 'health manpower research', questions of 'transfer of technology to developing countries' with special reference to health, and the formulation of a 'global research strategy' based on major determinants of health. The first two issues are of primary importance in view of the need to reinforce primary care (levels of care directly accessible to the population as compared with more institutionalized, hospital-based ones), and the need to overcome the maldistribution of resources between industrialized and developing regions.

The formulation of a global research strategy was based on historical, epidemiological, and environmental, considerations. Historically one can assume that Man's health and life-expectancy, from prehistoric times, has been limited primarily by deficiencies and hazards—particularly by limited food resources and proneness to disease under conditions of malnutrition. The major agricultural revolutions were primarily effective in raising population-densities to levels at which a new balance between food supply and hazards and disease was attained.

Concerning disease, the interaction between crowded living-conditions—connected with elevated population-densities—and infectious disease was most conspicuous. Besides deficiencies and hazards, the phenomenon of maladaptation has become a prominent feature in more recent historical times. This phenomenon has to be seen in the light of an accelerating change of Man's environment as a consequence of the several phases of agricultural, industrial, and socio-economic, revolution. During this phase of rapid environmental change, Man's genetic pattern—his inborn means *inter alia* to cope with environmental hazards—has remained comparatively stable. Psychosociocultural stress and environmental pollution therefore have become major hazards to health, especially in industrialized regions. However, during a phase of rapid acculturation — also described as 'westernization'—developing regions are exposed to similar, often even more rapidly onsetting, determinants of health. They are therefore apt to be increasingly confronted with problems of maladaptation.

The consequences for research policy and development, drawn from these insights, were under active debate by the Committee, and this debate will continue. A perspective

putting more stress on a multisectoral (including such sectors as economy, sanitation, and education) research approach in the field of health — as compared with a more narrowly-defined 'biomedical' one — will be one of the main issues of this continuing debate.

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AGRO-CHINA '84, BEING THE FIRST INTERNATIONAL AGRO-TECHNOLOGIES EXPOSITION & SYMPOSIUM, HELD IN THE GUANGDONG SCIENTIFIC HALL, GUANGZHOU, PEOPLE'S REPUBLIC OF CHINA, DURING 19–24 NOVEMBER 1984

This auspicious dual event was sponsored by no fewer than 48 agro-related Chinese organizations, supported by 114 governmental and commercial concerns from numerous other countries, and favourably recognized by the Food and Agriculture Organization of the United Nations (FAO), the United Nations Industrial Development Organization (UNIDO), and the Foundation for Environmental Conservation (FEC). Of these the last three concerns sent messages for the opening, which were printed in English and Chinese in the handsome 114 pages' illustrated programme and catalogue of exhibits etc., while leading representatives of the last two shared the platform and gave the keynote addresses at the opening session of the symposium.

The exhibits were arranged and paid for by their exhibitors, and constituted an impressive and colourful display of booths and alcoves occupying two floors of a large building adjacent to the symposium complex that contained the main auditorium seating nearly 1,000 and also several smaller seminar rooms.

With expert organization by AVP Expositions Co. Ltd of Hong Kong, led by their Vice-Presidents the brothers Wilson and Winston Wai, and co-organization in China by the China Guangzhou Scientific & Technical Exchange Center with Foreign Countries, this constituted a suitable set-up that proved well able to cope with the estimated 25,000 visitors (*ca* 22,000 were registered already before the opening) to the Exposition and the much smaller but still substantial number who were concerned with the Symposium. Although most of the exhibitors were making their first visit to China, it is understood that quite a large proportion of them were invited to proceed to other parts of the country — to demonstrate the capabilities of their wares and the suitability of their application under various climatic and other conditions.

Of strictly environmental exhibits there were few, and although protection of environment in general and of soils in particular was a recurrent theme in exhibits emanating from several countries, it is felt that they ought to loom far larger on future occasions—especially with China taking the No.1 place in the world in her use of nitrogenous fertilizers and the No.3 place (after USSR and USA) in her use of phosphatic fertilizers.

The Symposium fared better than the Exposition in the matter of environmental concern, with, for example, an opening-session account of 'The Biosphere and Ourselves' attempting to relate individual personal environments to The Biosphere which they make up collectively, and hence are needful of protection for the general as well as each individual's good. There were also an illustrated paper relating shelterbelts to local einvironments and crop yields especially of maize and soybeans in Ontario, Canada, and an account of 'Experience in the Reforestation and Creation of Shelterbelts on Degrading Land under Low Rainfall in Western Australia'. (Unfortunately, a scheduled paper on 'Practical Experience in Desert Reclamation, Sand-Dune Stabilization, and Afforestation' was not given owing to the non-arrival of its author from Australia, and it is suggested that on future occasions some provision should be made for *in absentia* presentation in such circumstances.

The Symposium also missed out in the matters of questions and discussion, for which there was generally no time owing to the need to translate all English into Chinese and *vice versa*, whereas simultaneous interpretation would have saved at least half of the time while preserving continuity much better than was possible with sentence-by-sentence treatment. These items are mentioned as needful of remedying on future occasions such as one hopes there will be at two- or three-yearly intervals, to keep up interest and the free flow of information on advances and other developments. Nevertheless in most ways the event was an obvious success as well as encouragingly interesting joy, and the unfailing kindness and generosity of our hosts was such as can scarcely be forgotten — any more than can our sympathy for their very proper desire to improve the lot of the great Chinese people through a 'slow but sure' progression.

If, as seems desirable, there are to be further events of this kind at 2- or 3-yearly intervals in future—perhaps rotating among different major areas of China or even other countries of Southeast Asia—it is thought that they might with advantage be concerted through a quarterly or other journal on agricultural development in southeastern Asia, such as could surely benefit that most populous region of the world. Massive distribution of free illustrated leaflets might further disseminate this service to where it basically belongs.

NICHOLAS POLUNIN

Important Prospect:

INTERNATIONAL ARID LANDS RESEARCH AND DEVELOPMENT CONFERENCE: 'ARID LANDS TODAY AND TOMORROW', TO BE HELD AT THE UNIVERSITY OF ARIZONA, TUSCON, ARIZONA, USA, DURING 20–25 OCTOBER 1985

This event will mark the 25th anniversary of the conclusion of UNESCO's major Arid Lands Research Project and also emphasize a new commitment to making the world's arid zones more habitable and productive than they have lately become. By emphasizing current research, the Conference will bring together global leaders from cultural, scientific, industrial, and public, sources — to develop a new perspective on the future of the world's arid lands. Co-sponsors of this Conference include the American Association for the Advancement of Science, the US Agency for International Development, the UNESCO Man and the Biosphere Programme, and the University of Arizona Foundation.

The Conference and related events will focus on desert research, management, development, and conservation. A call has been announced for papers on the following topics: water utilization, conservation, and allocation; agriculture and food systems; natural resources reclamation, conservation, and use; and human habitats.

Prospective participants should provide the Conference Coordinator with the following information in English: title of proposed paper; name of author or authors; affiliation and address of author(s); and an abstract of the paper in 200 or fewer words, by 31 December 1984. Selections will be announced by 1 Feburary 1985. Inquiries and abstracts should be directed to the Conference Coordinator, ARID LANDS TODAY AND TOMORROW, at the address given below.

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